

Date: Tuesday, 3/11/2008 7:57:43 AM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : STEP EXTRUSION
Job Number : 37754	
Estimate Number : 10058	
P.O. Number :	Part Number : D2622120C
This Issue : 3/11/2008 S.O. No. :	Drawing Number : D2622 REV C1
Prsht Rev. : NC	Project Number : N/A
First Issue : 1 / Type : PURCHASED PARTS	Drawing Revision : C1
Previous Run : 36923	Material :
Written By : <u>                    </u>	Due Date : 4/4/2008 Qty: 120 Um: Each
Checked & Approved By : <u>                    </u>	
Comment : Est. A. 02.11.12 New Issue KJ/RF	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0

PG

PURCHASING



Comment: PURCHASING

Issue P/O: 5903C208/03/12120

- a) Extrude as per Dwg D2622 Rev. C
- b) Material: 6061-T6 (QQ-A-200/8)
- c) Minimum yield tensile strength = 35 ksi
- d) Minimum ultimate tensile strength = 38 ksi
- e) Minimum elongation = 8%
- f) Order at 120" longg) Bon L Canada Inc. tool # 897123 Rev. A
- h) To be packed per DSK 066
- i) Pull test to ASTM standard B221 required.
- j) Material certification is required

76  
51  
37

2.0

D2622120CP

Extrusion



Comment: Qty.: 1.0000 Each(s)/Unit Total : 120.0000 Each(s)  
 Extrusion

3.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

- Receive & Inspect For Transit Damage
- Ensure material certification is attached

C 8/3/26126

4.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

- Inspect dimension per Dwg D2622
- Check Pull test per Dwg D2622 for compliance page attached
- Check hardness with Webster tester

02/9/07126

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 3/11/2008 7:57:44 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: STEP EXTRUSION

Job Number: 37754

Part Number: D2622120C

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: HALL 003

ET 08-03-28

126

6.0

QC21

FINAL INSPECTION/W/O RELEASE



08/04/03

JA

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



UMF

08-03-28

W

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

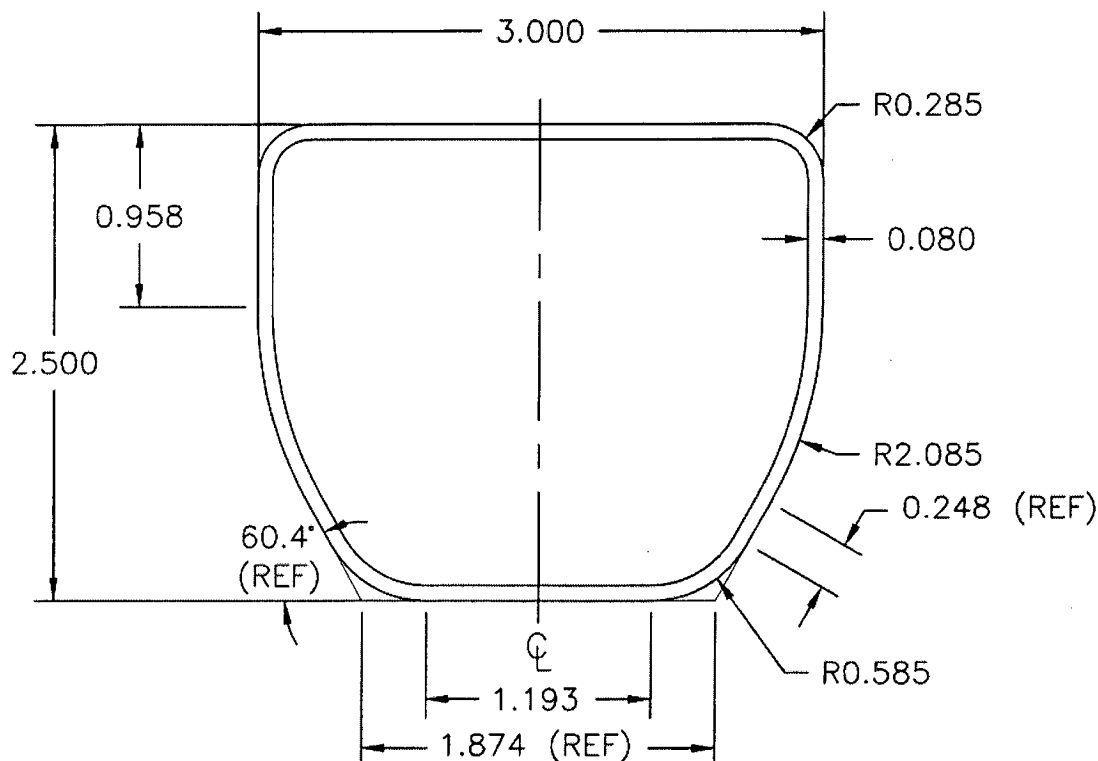
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries




DESIGN KE		DRAWN BY CP		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #		APPROVED #		DRAWING NO. D2622	
DATE 02.09.11				REV. C SHEET 1 OF 1	
		TITLE STEP EXTRUSION		SCALE 1:1	
A	96.11.29	NEW ISSUE			
B	97.12.12	CHANGE MATERIAL, ADD TOL. QSI			
C	02.09.11	0.080 WAS 0.085; ADD PART & DIE No.			
CI	CP 02.10.04	ADD 'REV. A' TO DIE NUMBER.			

RELEASED  
02.09.11 #



#### D2622-XXX STEP EXTRUSION

- 1) PART NUMBER IS D2622-XXX WHERE 'XXX' IS CUT LENGTH IN INCHES (EG. D2622-120 IS 120" LONG)
- 2) MATERIAL 6061-T6 (QQ-A-200/8)
- 3) MANUFACTURED USING BON-L DIE # 897123 Rev. A 
- 4) A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE MINIMUM MECHANICAL PROPERTIES STATED BELOW:

MINIMUM TENSILE YIELD STRENGTH = 35 ksi  
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi  
MINIMUM ELONGATION = 8%

- 5) PART IS SYMMETRIC ABOUT CENTERLINE
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 7) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 37754

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INVOICING COMPANY AND LOCATION  
SIGNATURE ALUMINUM CANADA  
500 EDWARD AVENUE  
RICHMOND HIL ON L4C 4Y9

# SHIPPING MANIFEST

ACCT# 00046024

SHIP TO DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY ON K6A 1K7 CN  PHONE 613-632-5200	SOLD TO / PURCHASER DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY ON K6A 1K7 CN  PHONE 613-632-5200
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TERMS / FREIGHT  
O / P

REFER TO  
THESE NUMBERS ON  
ALL CORRESPONDENCE

MANIFEST DATE 03-24-08
MANIFEST NUMBER 638042
SALES ORDER NUMBER 27644

CREDIT REP HAMBROOK, PAU 905-508-3250	SALES REP
FIELD SALES REP Kutter A 450-435-6551	CUST SERVICE REP Burton D 905-427-2227

CUSTOMER ID 46024	ORDER DATE 03/12/08	CUSTOMER PO NUMBER 5903	JOB	BILL OF LADING NUMBER 08375792
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ITEM NO.	ORIGINAL ORDER QUANTITY	UNIT	PREVIOUS SHIPPED QUANTITY	MFG. PART NUMBER	ALLOY & TEMPER	FINISH DESCRIPTION	THIS SHIPMENT			UNIT	QUANTITY DUE	
				CUSTOMER PART NUMBER	LENGTH	FABRICATION DESCRIPTION	NBR OF PKGS	GROSS POUNDS	NET QUANTITY			
					CUTTING TOLERANCE	SHIPPING TOLERANCE						
02	121	KG	0	DAA-897123-1	6061 /T6	MILL	2	546	526	KG	0	
		M	0	D2622	120"	CERTIFICATE OF COMP			384.05	M	0	
		PC	0		+3/16 "	(+015-015,0139-0102)			126	PC	0	
					-0 "							
				LOT/TKT DETAIL:		27644020 / 186853	1	218	208		50 PC	
						27644020 / 186854	1	328	318		76 PC	

Transportation/Traffic damages and/or shortage claims are to be noted on the delivery copy of sellers shipping manifests and signed and dated below by customers authorized representatives.  
No return materials will be accepted for credit without permission. The articles and/or services covered by this shipping manifest were produced in accordance with the fair labor standards act of 1938 as amended. Order accepted subject to the terms and conditions stated on the reverse side.

PAGE 1

# CERTIFICATE OF COMPLIANCE

## SIGNATURE ALUMINUM CANADA

500 EDWARD AVENUE  
RICHMOND HILL, ON L4C 4Y9

Cert. Date	Cert. No.	Sales Order	Page
03/24/08	175019	27644	1
Cust. PO	B/L No.	Lot	Date
5903	08375792	27644020	3/24/08

Sold To	Ship To
46024	46024
DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7	DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7

Item No	Part No	Item Description	Cust Part
2.000	DAA-897123-1	120" Mill 6061 T6	D2622
Gross Weight	546 KGS		
Net Qty	526 KG	126 PC	384 M
Specification	AMS-QQ-A-200/8 & ASTM B221-06		
Die Desc			

### Mechanical Tests:

Test No.	Tensile MPA / KSI	Yield MPA / KSI	%Elongation	Conductivity	Bend/Drift HREW
1	320.7 / 46.5	284.9 / 41.3	10.4	.0	94

### Chemical Analysis:

SI	FE	CU	MN	MG	CR	NI	ZN	GA	V	TI	ZR	OTHER
.65	.29	.28	.08	.87	.06	.006	.08	.000	.011	.02	.000	.00

This will certify that the material described herein has been inspected and tested in accordance with Signature Aluminum Canada's standard sampling and testing procedures or in accordance with the requirements of any specification forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgment form. No other warranties are applicable.

D. VanBakel, QA Manager Signature Aluminum Canada Inc